

Western Cherokee Grasslands

Conservation Opportunity Area



Osage
Plains



Many native prairie remnants remain in the Western Cherokee Grasslands Conservation Opportunity Area.

Missouri Department of Natural Resources

Once dominated by a sea of tallgrass prairie, the Western Cherokee Grasslands is now a patchwork of pasturelands, crop fields, formerly mined lands and native prairie remnants. Prairie State Park, at nearly 4,000 acres, conserves Missouri's largest remaining tallgrass prairie. The Missouri Department of Conservation, the Nature Conservancy and Missouri Prairie Foundation own scattered prairies throughout the landscape. Although public lands help conserve significant prairie resources, over 95 percent of the Western Cherokee Grasslands is in private ownership. The existing conservation network, along with privately owned native prairie remnants, makes Western Cherokee Grasslands one of the best places to manage and restore functioning tallgrass prairie landscapes.

The Missouri Natural Heritage database indicates eight "hotspots" for species of conservation concern within the Western Cherokee Grasslands Conservation Opportunity Area (COA). Remaining native prairie patches support populations of northern harriers, Henslow's sparrows, grasshopper sparrows, dickcissels and Bell's vireos – all designated as priority grassland birds. Mead's milkweed, a federally threatened prairie plant, occurs here along with the greater prairie-chicken, southern prairie skink and plains spotted skunk.

Drywood Creek drains the northern two-thirds of the COA. A one-mile stretch, designated as the East Drywood Creek Natural Area, runs through Prairie State Park. Characteristic prairie fish include red shiner, sand shiner and suckermouth minnow.

Western Cherokee Grasslands Conservation Strategies

- Restore native prairie on public and private land; maintain existing clusters of native prairie remnants.
- Provide connectivity between native prairie habitats.
- Manage prairie remnants and grasslands to encourage structural diversity.
- Restore grassland habitat for grassland birds.
- Promote conservation practices on private lands through outreach and education.
- Remove trees-lines and forests from historic prairies.
- Establish a “burn cooperative” to help conduct prescribed burns on private land.
- Manage for quality woodland, savanna and prairie mosaics where appropriate.
- Establish a Special Area Land Treatment (SALT) project along the Little North Fork River.
- Control populations of problem exotic plants (e.g. sericea lespedeza).



Jim Radtke, Missouri Department of Conservation

The Missouri Department of Natural Resources has reintroduced bison and elk to Prairie State Park. Although no longer roaming wild, these large grazers played an important role in shaping Missouri's prairie landscape.

Priority Research and Inventory Needs

- Conduct patch-burn grazing research.
- Support research for methods of exotic species control.



Tom Johnson, Missouri Department of Conservation

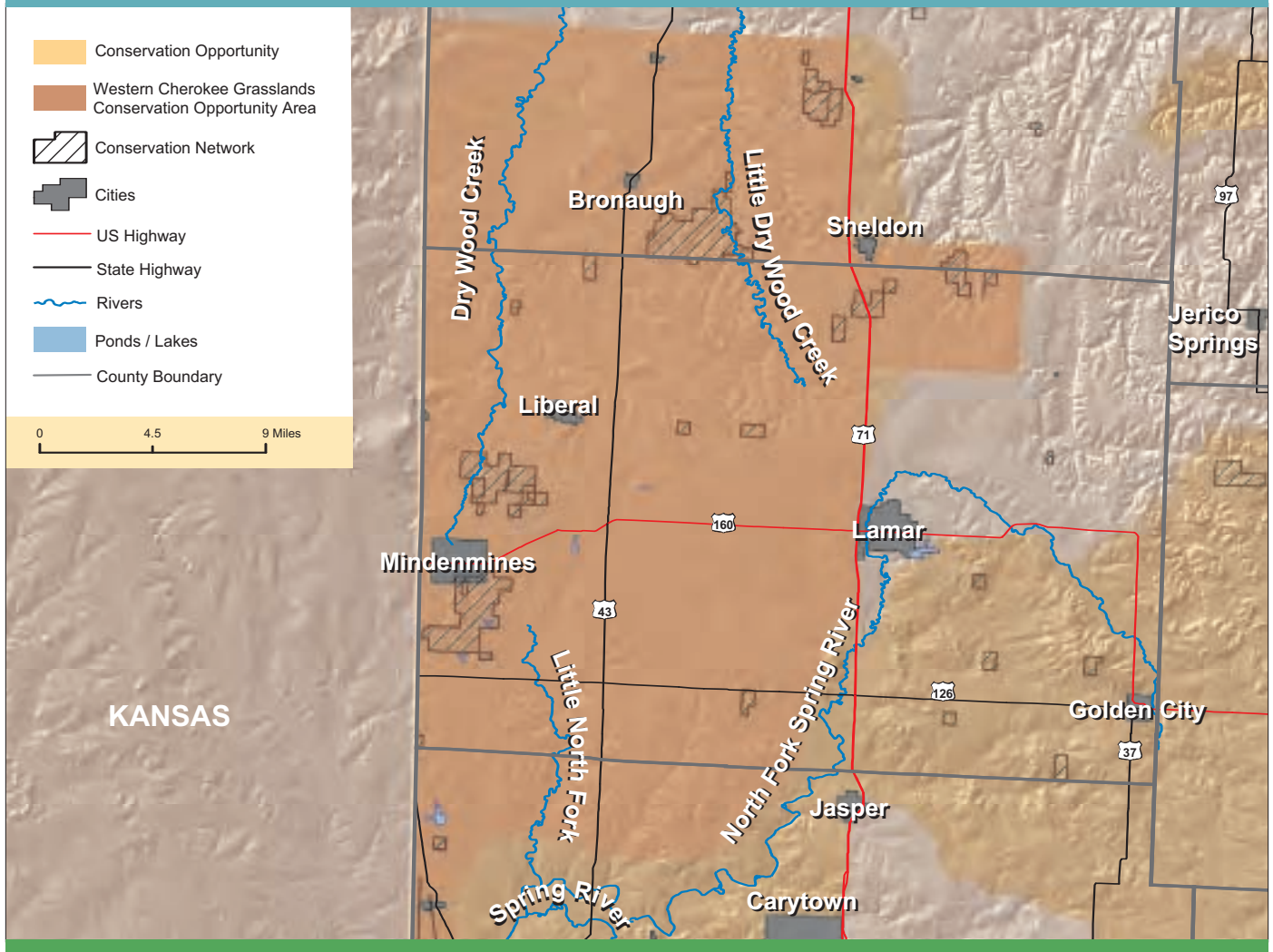
Conservation Partners

Existing: The Nature Conservancy – Missouri Chapter; Grasslands Coalition; Missouri Prairie Foundation (MPF); Ozark Regional Land Trust; Quail Unlimited (QU); Audubon Missouri; Missouri Southern University; U.S. Fish and Wildlife Service (USFWS); Missouri Department of Natural Resources (DNR); Natural Resources Conservation Service (NRCS); Missouri Department of Conservation (MDC)

Potential: National Wild Turkey Federation (NWTf); Ducks Unlimited

*The **northern crawfish frog** is a species of conservation concern that is restricted to native prairie or former prairie areas. They require crayfish burrows for shelter and temporary wetlands for breeding. The Western Cherokee Grasslands support the core habitat requirements of the northern crawfish frog and are important to the recovery of this species in Missouri.*

Western Cherokee Grasslands Conservation Opportunity Area



Funding Sources

Existing: DNR annual budget; TNC annual budget; MPF annual budget; MDC annual budget; MDC Private Lands Cost Share Program; Soil and Water Conservation Districts State Cost Share Funds; National Fish and Wildlife Foundation Grant; FMC Corporation; USFWS Section 6 Funds

Promising Future Sources: Missouri Bird Conservation Initiative grants; NRCS Grassland Reserve Program; NRCS Environmental Quality Incentives Program; NRCS Wildlife Habitat Incentive Program; Farm Service Agency Conservation Reserve Program; USFWS Partners for Fish and Wildlife Program; QU Quail Habitat Incentive funds; NWTF Wild Turkey Super Fund; MDC State Wildlife Grants; MDC Wildlife Diversity Funds; MDC Landowner Incentive Program

Existing Conservation Network

Prairie State Park (East Drywood Creek Natural Area, Regal Prairie Natural Area, Tzi-sho Prairie Natural Area); Shawnee Trail Conservation Area; Bushwhacker Lake Conservation Area; Osage Prairie Conservation Area and Natural Area; Bethel Prairie Conservation Area; Buffalo Wallow Prairie Conservation Area; Comstock Conservation Area; Davis Memorial State Forest; Drywood Conservation Area; Mo-No-I Prairie Conservation Area; Mon-Shon Prairie Conservation Area; Redwing Prairie Conservation Area; Clear Creek Conservation Area; Wah-Sha-She Prairie Natural Area; Little Osage Prairie Natural Area; Latner Prairie; Edgar & Ruth Denison Prairie; Edward B. & Marie O. Risch Conservation Area; Hunkah Prairie Natural Area

Renewal by Fire



For the past 10,000 years, Native Americans and lightning created fires that helped maintain Missouri's prairies. Land managers today use prescribed fire for many of the same reasons that Native Americans did: to maintain healthy, open prairies that support thriving plant and animal populations.

Cliff White, Missouri
Department of Conservation

Conservation Challenges

The Western Cherokee Grasslands provides an opportunity to restore large blocks of native grassland in southwestern Missouri. Potential obstacles to conservation success include a lack of landowner participation, insufficient landowner cost share programs for fescue conversion, limited

funding and staff time, inadequate education and outreach to private landowners, ability of multiple agencies and interests to work together and a lack of information about the economic benefits of native grasslands.

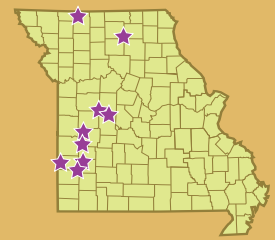
To learn more about the Western Cherokee Grasslands Conservation Opportunity Area, please contact:



Missouri Department of Conservation
Wildlife Division
P.O. Box 180
Jefferson City, MO 65102-0180

Greater Prairie-Chicken

Recovery Initiative



Grasslands Coalition
Focus Areas



Greater Prairie-chicken



Prairie-chicken Lek



Native Prairie

As a result of continuing population declines throughout the state, the Missouri Department of Conservation (MDC) added the greater prairie-chicken to Missouri's endangered species list in 1999.

Greater prairie-chickens once thrived on the vast tracts of open grassland that blanketed a third of the state. Now just a fraction of a percent of native prairie remains. The greater prairie-chicken is just one of many prairie species imperiled by the loss of tallgrass prairie habitats.

The key to conserving prairie-chickens and other tallgrass prairie species is cooperative land management across prairie landscapes. Conservation at the scale needed will necessarily involve many partners, including the residents of Missouri communities that share a common geography with remnant tallgrass prairie habitats and the remaining prairie-chicken populations.

The Grasslands Coalition, a public/private partnership committed to the conservation of Missouri's native grasslands, is refocusing conservation attention on recovering this symbol of healthy tallgrass prairie ecosystems.

Working together, we can recover the prairie-chicken in Missouri. The Grasslands Coalition invites your input and participation in this conservation project.

Recovery Goal: Remove greater prairie-chickens from the state's endangered species list.

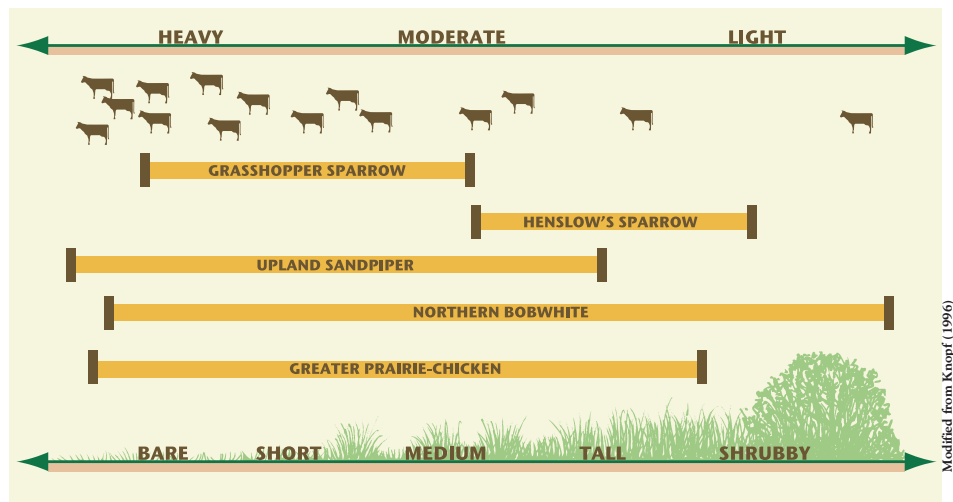
- Recovery will be considered accomplished when Missouri has a statewide population of at least 3,000 birds throughout the Grasslands Coalition Focus Areas for 10 years.

Grassland Habitat Goal: Each prairie-chicken population will require a minimum of 4,000 acres of grassland habitat within a 10,000 acre landscape.

- The 4,000 acres of managed grassland bird habitat should include a protected 2,000 acre core centered on prairie chicken leks and scattered tracts making up the remaining 2,000 acres. At least half of these scattered tracts should be greater than 100 acres.

Targeted Landscape	Targeted Species
Native prairie/wildlife friendly grassland complexes	Greater Prairie-chicken, Grasshopper Sparrow, Henslow's Sparrow, Upland Sandpiper
Other Species that will Benefit	
Eastern Prairie Fringed Orchid, Western Prairie Fringed Orchid, Oklahoma Sedge, <i>Carex bicknellii</i> , <i>Carex missouriensis</i> , <i>Carex opaca</i> , Wolf's Spike Rush, Mead's Milkweed, American Burying Beetle, Prairie Mole Cricket, Regal Fritillary, Grassland Crayfish, Northern Crawfish Frog, Slender Glass Lizard, Bullsnake, Ornate Box Turtle, Topeka Shiner, Bobolink, Bell's Vireo, Scissor-tailed Flycatcher, Dickcissel, Eastern Meadowlark, Northern Harrier, Sedge Wren, Loggerhead Shrike, Swainson's Hawk, Hispid Cotton Rat, Prairie Vole, Black-tailed Jack Rabbit	

Grassland birds require a wide variety of plant heights and densities ranging from bare ground to tall grasses. One method used to produce this structural diversity in grasslands is called patch burn grazing. Patch burn grazing mimics the historical interaction of two ecological processes that shaped native prairies—fire and grazing. Each year a third of the pasture is burned. The lush regrowth focuses grazing within the burned area. The burned unit shifts from year to year, providing varied structure throughout the managed area.



Desired Change	Proposed Monitoring
↑ Increasing numbers of prairie-chickens	Population survey of prairie-chickens annually
↓ Decreased fragmentation in prairie landscapes	Periodic assessment of land cover using satellite imagery or aerial photography
↑ Increased acres of prescribed fire management, rest-rotation and patch-burn grazing	Acres benefited as reported by MDC Private Lands program monitoring
↓ Decreased acres of grassland dominated by fescue	Periodic assessment of land cover using satellite imagery or aerial photography/ground truthing
↑ Increased acres of cropland restored to native grasses and prairie forbs or wildlife friendly grasses	Periodic assessment of land cover using satellite imagery or aerial photography
↓ Declining amount of sericea lespedeza due to active control methods	Field visits and regular site evaluations
↑ Improved native plant community composition on remnant prairies	Vegetation sampling to detect changes in conservative prairie plants at 3-year intervals
↑ Increased community awareness and involvement in prairie conservation	Human dimensions survey and workshops

This initiative represents just one aspect of tallgrass prairie conservation. The Grasslands Coalition seeks long-term protection of prairie landscapes including the full array of native natural communities and species.

To learn more, please contact:



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